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REMARKS

As a preliminary matter, the indication of allowable subject matter in claims 2 to 11 is once more acknowledged with gratitude.

In another preliminary matter, Applicant has presented an amendment to the specification, to correct an apparent clerical error. This amendment is purely formal and is unrelated to patentability. It does not change the scope of the claims, and it presents no new matter. Applicant respectfully requests that this amendment be entered into the application.

Turning now to substantive matters, the final Official Action dated May 16, 2005, has repeated and made final the rejection of claims 1 and 12 as obvious under 35 U.S.C. §103(a) in view of U.S. Patent Appln. Publn. No. 2004/0209705 by Rajagopalan et al. (hereinafter "Rajagopalan"). The Official Action alleges that Rajagopalan describes the composition of the cover of Applicant's claimed golf ball.

The Applicant respectfully traverses this rejection for the reasons set forth in the Response dated March 2, 2005, and also in light of the following:

In order to establish a *prima facie* case of obviousness, all of the elements of the claimed invention must be described in the cited reference(s). Rajagopalan, however, does not describe the composition of the cover of the golf ball of claim 1, or the process of claim 12.

More specifically, claim 1 and claim 12 each recites a polymer blend that comprises two polymers having a bimodal molecular weight distribution. As both Applicant and the Examiner have noted, however, the Rajagopalan reference does not provide direct information about the molecular weight of the materials used in the golf balls described therein.

Therefore, the Official Action asserts that the high crystalline acid copolymers described in paragraph [0083] correspond to the low copolymers that constitute component (b) of Applicant's claim 1. There is an indirect description in paragraph [0083], however, in which Rajagopalan states that the high crystalline acid copolymers of Applicant's composition "can have a melt index ("MI") of from about 20 to about 300 g/10 min".

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It is well known that, when a polymer's composition is held constant, its viscosity increases with increasing molecular weight. The melt index range required by Rajagopalan corresponds to materials that are high polymers, or, more colloquially, "plastics". Although Rajagopalan also does not specify a method according to the melt indices were measured, in one common technique, the test polymer is heated to a temperature of 190°C and forced through a standard aperture under a weight of 2160g (ASTM D-1238). In other words, when the molecular weight of Rajagopalan's high crystalline acid copolymers is at its lowest (MI = 300 g/10 min), **at most** only half a gram of a polymer that is heated to a temperature almost a hundred degrees higher than the temperature of boiling water can be forced through the aperture every second, when pressed down by a weight of about five pounds.

In stark contrast, the low copolymers of Applicant's component (b) do not behave like "plastics." In fact, these materials are often referred to colloquially as waxes. See the specification on page 12 at lines 17 to 19. The viscosities of these waxes are simply too low to be measured by the melt index method. **Significantly, this means that their molecular weights are also too low to be measured by the melt index method.**

The specification includes viscosity data for several suitable low copolymers, 575 to 650 cPs Brookfield at 140°C. (Applicant strongly emphasizes that this viscosity range is not in any way to be considered a limitation on the low copolymer; rather, it is only an example of the viscosities of some preferred low copolymers.) First, the viscosities of these low copolymers can be measured under conditions that are much milder (50°C lower) than the typical melt index measurement. Second, the reported viscosities of the exemplified low copolymers lie somewhere between the room-temperature viscosities of a typical paint (500 cPs) and of castor oil (1000 cPs). (SPX Process Equipment web page, <http://www.spxprocessequipment.com/nettco/viscosities.html>, accessed on October 14, 2005; *copy appended*.) Applicant respectfully submits that spraying would not be a practical method of applying paint, if no more than 0.5g/sec of paint could be forced through a reasonably sized aperture under a pressure of about five pounds.

Thus, it is also respectfully submitted that the high crystalline acid copolymers described in Rajagopalan simply belong to a different class of materials from the low copolymers that are featured in claim 1 and claim 12. In particular, Applicants believe

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that the melt index range required by Rajagopalan specifically excludes low copolymers having the molecular weight range that is specifically recited in claim 1 and claim 12.

It follows that Rajagopalan has not described every element of claim 1 or of claim 12. Therefore, claims 1 and 12 are not obvious over Rajagopalan. Accordingly, Applicant respectfully requests that this rejection be withdrawn upon reconsideration.

Restriction Requirement

In an Official Action dated July 23, 2004, restriction was required between the following two groups of claims:

- I. Claims 1 to 12, directed to a golf ball cover and a method of making a golf ball cover, and
- II. Claims 13 to 22, directed to a one-piece golf ball and a method of making a one-piece golf ball.

As is stated in the M.P.E.P. at § 803, restriction may only be required between inventions that are either independent or distinct. According to the M.P.E.P. at § 802.01, "[t]he term 'independent' (i.e., not dependent) means that there is no disclosed relationship between the two or more inventions claimed, that is, they are unconnected in design, operation, and effect." *[Editorial marks removed.]* Furthermore, "[r]elated inventions are distinct if the inventions *as claimed* are not connected in at least one of design, operation, or effect ..." *[Emphasis in original.]*

Applicant respectfully submits that there is indeed a disclosed relationship between the golf ball cover of claim 1 and the one-piece golf ball of claim 13. Moreover, the golf ball cover of claim 1 is connected to the one-piece golf ball of claim 13, at least by design. Specifically, both the one-piece golf ball and the golf ball cover share the design feature of a thermoplastic composition comprising a polymer blend with a bimodal molecular weight distribution. This design feature is specifically recited in claims 1 and 13. Therefore, the inventions of claim 1 and claim 13 are neither independent nor distinct, and restriction between them is not proper.

Moreover, it is well established that when "the search and examination of all the claims in an application can be made without serious burden, the examiner must examine them on the merits, even though they include claims to independent or distinct

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inventions." [M.P.E.P. § 803; *emphasis supplied; editorial marks removed.*] The M.P.E.P. continues at § 808.02, "[w]here, however, the classification is the same and the field of search is the same and there is no clear indication of separate future classification and field of search, no reasons exist for dividing among independent or related inventions."

According to the restriction requirement issued on July 23, 2004, the subject matter of claims 1 to 12 and that of claims 13 to 22 are both classified in class 473, in subclasses that pertain to the game of golf. Thus, the classifications of these two groups of claims are the same, and the field of search is the same. Also, the Official Action has provided no indication that the classification or field of search of these inventions will change. Therefore, the inventions of these two groups of claims are classified together, and the additional burden of examination does not rise to a level of seriousness that would justify a restriction requirement between them.

Consequently, Applicant respectfully requests that the Restriction Requirement previously issued in the present application be withdrawn upon reconsideration, and that claims 13 through 22 be rejoined with claims 1 through 12 for examination.

Conclusion


A Petition for an Extension of Time for two months and the required fee for the extension are filed concurrently herewith. Should any further fee be required in connection with the present response, the Examiner is authorized to charge such fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

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In view of the above amendments and remarks, it is felt that all claims are in condition for allowance, and such action is respectfully requested. In closing, the Examiner is invited to contact the undersigned by telephone to conduct any business that may advance the prosecution of the present application.

Respectfully submitted,



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Enclosure: Table of typical viscosities

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TYPICAL VISCOSITY VALUES at 70° F

<u>LIQUID</u>	<u>CENTIPOISE</u>
Water	1
Gasoline	8
Kerosene	10
Sulfuric Acid	25
Blood	50
Sae 10 Oil	60
Olive Oil	100
Glucose	500
Paint	500
Caster Oil	1000
Glycerine	1500
Glycerol	1500
Catsup	3000
Molasses	3000
Honey	5000
Corn Syrup	5000